cornflower blue 1 part, licorice root nuts 1 part); *Species diureticae №2* (leaves of martyr 2 parts, juniper fruit of usual 2 parts, licorice root of the bare 1 part); «Phytobronchol» (daisies of flowers 20%, common stems of 20%, calendula of flowers 20%, violets of grass 20%, licorice 15%, peppermint 5%, Baby herbal tea «Malinka» (Raspberry fruit, wild rose, black currants, sudan rose petals, mint leaves, licorice root).

Results and discussion. Most natural anthocyanins have a range of maximum absorption limits at 510-540 nm. The anthocyanins were extracted with acidified methanol (methanol and 1% HCl) in water bath for 30 min. Preliminary chromatographic study was performed by the method of paper chromatography. The same quantities of studied examples were applied to the start line of the paper Filtrak and chromatographed by upward method in solvent system ethyl acetate – glacial acetic acid – water (10:2:3). The dried chromatograms were viewed in visible light. For spectrophotometric determination, dilution was prepared in the ratio of 0.5: 25, as a solution for comparison, 70% ethyl alcohol was used. The optical density was measured on a spectrophotometer. The content of anthocyanins (%) was calculated on cyanidine chloride. To determine, the specific absorption of cyanidin chloride was used. The optical density was measured on a Agilent spectrophotometer. The method of quantification corresponded to the European Pharmacopoeia method (Ph. Eur. 7.0 Vol. 1. Hawthorn berries). The optical density of the solution at 545 nm is measured.

Conclusion. The quantitative content of anthocyanins in terms of cyanidin is determined. Cyanidin, delphinidin, petunidin and maldivin were identified by chromatography in plant mixtures.

MORPHOLOGICAL AND ANATOMICAL STUDY OF PEANUT LEAF CULTIVARS

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Introduction. At present, the current problem is the search for new sources of physiologically and biologically valuable products from non-traditional oilseeds. From a large number of the most widespread nut cultures, peanuts should be singled out, because their seeds are characterized by a balanced natural combination of basic native components.

Cultivated peanut, underground or earth peanut (Arachis hypogaea) is an annual herbaceous plant of the legumes family (Fabaceae). The following varieties of peanuts are common in Ukraine: Krasnodarets 13, Krasnodarets 14, Krasnodar 14, Krasnodar 15, AR 1, AR 2, AR 3, AR 4, AR 5, AR 6, VNIIOK 14, VNIIOK 15, Pink large, Pale pink 1, Pale pink 2, Pale pink 3, Dark red, Malinovy, Klynsky. For the most part, the Ukrainian market offers peanuts imported from China, India, and Uzbekistan. Despite the high value of peanut products, its crops in Ukraine occupy small areas.

Aim. The purpose of our work was to study the morphological and anatomical structure of peanut leaf varieties and to establish their diagnostic features.

Materials and methods. The above-ground part of peanuts was collected in the summer of 2018 in the Pervomaysky district of the Kharkiv region. The anatomical structure was studied using the microscope Item: PB-2610, the resulting photos were processed with application of the Adobe Photoshop CC 2018 program.

Results and discussion. Cultivated peanut is an annual plant, the root system is branched, and the stem is 30-50 cm high. The leaves are paripinnate, consisting of two pairs of leaves of ovoid shape. The leaves are glossy on the top, the lower side is slightly pubescent. The petiole is pubescent, thick, grooved, up to 5 cm in length, with two ring-shaped stipules. Flowers are of the butterfly type, yellow, sit in the axils of the leaves by one or two-three pieces. The lower flowers are on pedicels, sitting on the stem above. There are ten stamens nine of which are merged. Fruit is a bean, it has a mesh shell and, depending on the variety, contains from 1 to 3 (less often 4-6) seeds. Each plant produces 30-50 beans, and in some varieties it is much larger.

The cells of the epidermis of the lamina are parenchymal, round or oval, the cellular membranes are slightly wavy. Type of respiratory apparatus is paracytic. Prodigies are often found, evenly distributed, the orientation of the peritoneal gap is chaotic.

There is no pubescence on the upper epidermis. On the lower epidermis, pubescence occurs, on the vein the pubescence is more abundant. Trichomes are simple two-cellular, with a short basal cell filled with yellow-brown contents, and a long terminal cell. At the edge of the lamina, the pubescence is more abundant and the hairs are longer.

Conclusions. Thus, a morphological and anatomical study of cultivated peanut leaves was conducted. On the basis of the study of the anatomical structure of peanut leaves, characteristic microscopic signs were determined, which allows to conduct the diagnosis of raw materials.

STUDY OF FLAVONOID COMPOUNDS IN THE HERB DAHLIA CULTIVARS GROWN IN UKRAINE

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Introduction. The study of promising medicinal plant materials is currently one of the topical issues of domestic pharmacy and medicine. In the framework of a comprehensive pharmacognostic study of dahlia plants, we studied the phenolic composition of herbs, varieties of the dahlia genus widely cultivated in Ukraine.

Aim. Study of the qualitative composition and quantitative content of flavonoids in the herb of varieties of the dahlia genus cultivated in Ukraine.

Materials and methods. For analysis, we used herb of the following varieties: Nenecazy, Gitts Attention and Spolokh. Raw materials were collected during the flowering period and dried to air-dry condition. To confirm the flavonoid compounds in the herb, qualitative reactions were performed with a 1% solution of iron III chloride, a 10% solution of alkali and a Brianth reaction. A preliminary study of compounds of flavonoid nature was carried out by paper chromatography in solvent systems: I – n-butanol-acetic acid-water, II – 5% acetic acid in parallel with reliable flavonoid samples. Chromatograms were viewed under ultraviolet light, treated with ammonia vapors and 3% ferric chloride solution. The quantitative content of the studied compounds was determined by the spectrophotometric method with a wavelength of 415 nm.

Results and discussion. According to the results of the experiment, phenol compounds, in particular flavonoids, namely quercetin, kaempferol and rutin, were determined in all samples of the raw materials. A comparative study of the quantitative content of the amount of flavonoids in raw materials of varieties of the dahlia genus showed that this group of compounds was found in the greatest amount in the grass of the Gitts Attention variety (0.83 ± 0.02%), 1.1 times less in the variety Nenecazy (0.77 ± 0.01%),. In a smaller amount, flavonoids accumulated in the Spolokh variety 0.65 ± 0.02%.

Conclusions. The results will be used in subsequent studies, standardization of raw materials and the development of promising herbal substances.

ANALYSIS OF ARGAN OIL OF MOROCCAN ORIGIN

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Introduction. Argan tree (*Argania spinosa* (L.) Skeels), of the family *Sapotaceae*, is endemic in South-western Morocco where it grows over about 320,000 square miles. Argan oil and preparations